



How Well Am I Protected By A Shadow Vehicle?

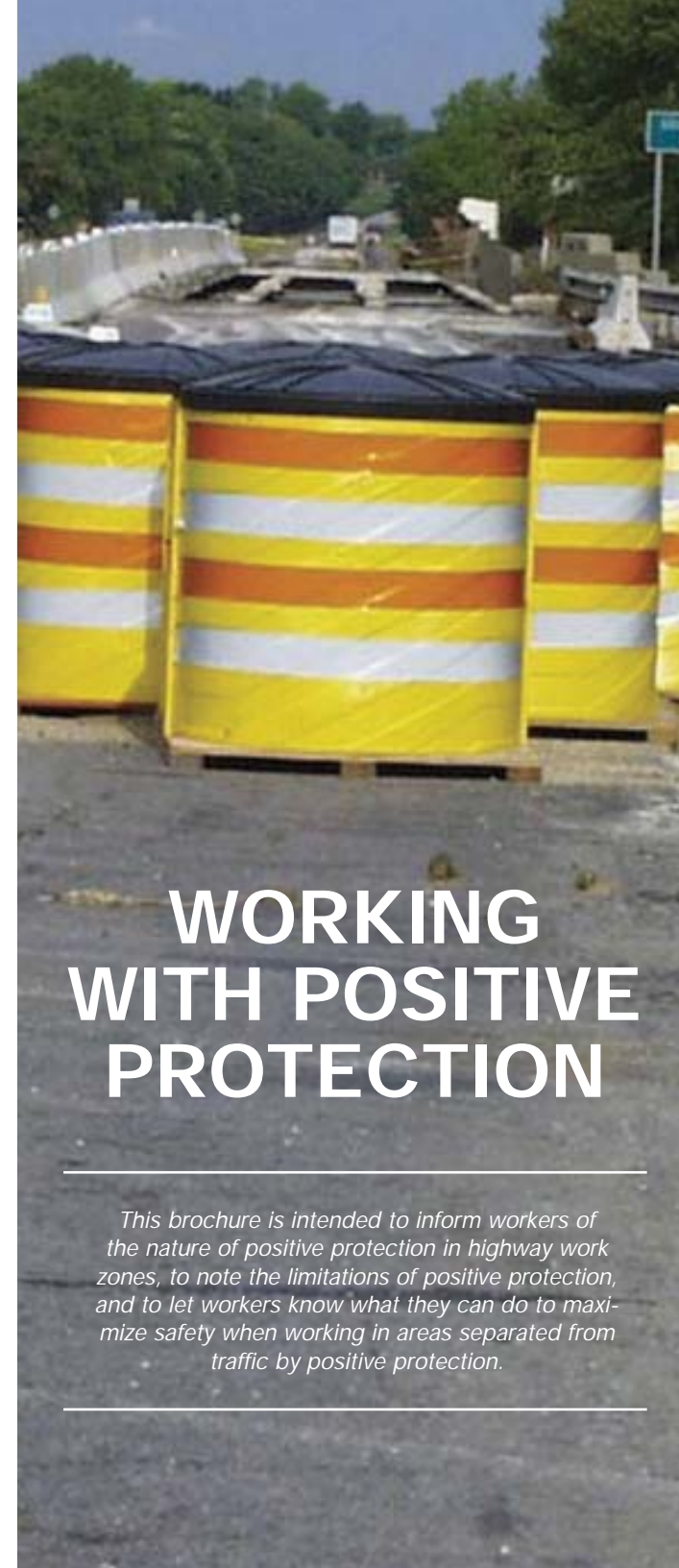
- Shadow vehicles provide protection to workers from rear-end crashes. They also cushion impacts for motorists.
- Workers on the pavement are still exposed to traffic from their sides.
- Worker and motorist visibility is sometimes limited due to the shadow vehicle.
- The shadow vehicle will roll forward if rear-ended. Workers need to maintain the recommended roll-ahead distance between them and the shadow vehicle.

The proper use of shadow vehicles is the responsibility of the Contractor. However, you should coordinate your actions to help assure your safety, and remain aware of correct usage.



What Should I Do To Ensure That The Work Area Is As Safe As Possible?

1. Stay Alert
 - Stay as far from traffic as practical.
 - Keep an eye and an ear to traffic.
 - Wear high visibility vests, hats, etc.
 - Look out for each other.
 - Keep tools, equipment, and materials away from TCB's and traffic.
2. Take part in your own safety, and report deficient or suspect installations of positive protection.
 - Anchorage of TCB's
 - Location of Devices
 - Condition of Devices
 - Sound Connection of TCB's
3. Check and repair any impact damage promptly.
 - Damaged or displaced devices will have reduced protective capability.



WORKING WITH POSITIVE PROTECTION

This brochure is intended to inform workers of the nature of positive protection in highway work zones, to note the limitations of positive protection, and to let workers know what they can do to maximize safety when working in areas separated from traffic by positive protection.

What is Positive Protection?

A means of physically separating the work space from traffic. Most common examples are portable temporary concrete barriers (TCB), and protective vehicles for moving operations.



What is the Purpose of Temporary Concrete Barrier?

Temporary concrete barrier provides a safer work area for stationary work operations by containing and redirecting most vehicles (not tractor semi-trailers) away from the work area. This also provides improved safety for motorists.



What is the Purpose of a Protective or "Shadow" Vehicle?

A protective vehicle provides a safer work area for moving operations. This usually con-

sists of a vehicle with appropriate lights, an arrow board, and a truck mounted attenuator (TMA). The TMA is a collapsible device, mounted at the back of the shadow vehicle. It can absorb a part of the impact when an errant vehicle crashes into it. This also provides a more forgiving environment for errant vehicles.

How Well Am I Protected with Portable Temporary Concrete Barrier?

Temporary concrete barrier will prevent many vehicles from traveling into the work zone. However, depending on speeds, approach angles, size and weight of vehicles, and housekeeping at the work area, several limitations must be considered.

- Wide loads may overhang past the barrier into the work area.
- Tall loads may roll over or lean over on impact.
- No portable concrete barrier in use in Illinois is designed to stop a tractor semi-trailer truck.
- When hit by a vehicle, the TCB may move. If the impact is from the side, the TCB may move into the work area. The higher the speed, angle, and weight of the vehicle, the greater this movement may be.
- On a divided highway with an open median, vehicles traveling in the opposite direction may still cross over the median and enter your work area.
- Vehicles may kick up road debris, or vehicle loads may come loose and enter the work area.
- Materials stored on, leaning against, or near TCB may become projectiles into the work area upon impact.



To Work Properly, the TCB Must Be Installed Correctly And According to Contract.

- Ends of TCB's must always be anchored.
- TCB's within 3'-6' of a hazard must be anchored.
- The crash cushion at the traffic end(s) of the TCB must be properly installed to design specifications
- The gap between the back of sand barrels and the end of the TCB's must be no more than 2'.
- TCB's must be connected with the steel pins shown in the plans.
- New F-Shape (12'-6' sections) does NOT require Styrofoam pads.
- The older 10' New Jersey sections DO require Styrofoam pads.
- The reflectors on the TCB's help guide traffic and keep you safe.

Proper installation of the TCB is the responsibility of the Contractor. However, because these devices may affect your safety, you should be aware of their correct usage.